

Abstract

A fast acting noise suppression device that uses energy level (volume level) of the input signal averaged over six to twenty milliseconds as a gain control for an output amplifier. The device is implemented with a digital signal processor (DSP). Rather than using an arithmetic formula to relate input volume to gain control for the amplifier, a look up table is used, allowing precise control of the function between input volume and amplifier gain. The range of lower input volumes which are suppressed by receiving relatively less amplification can be adjusted with a manual user control. The quality of the sound output as perceived by a listener is further improved by compression of high volume inputs so that they receive relatively less amplification than medium volume inputs.